



NEWS FROM NOAA

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION • US DEPARTMENT OF COMMERCE

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NOAA'S NATIONAL WEATHER SERVICE IMPROVES TORNADO RATING SYSTEM

NOAA's National Weather Service today announced plans to implement the Enhanced Fujita (EF) Scale to rate tornadoes to replace the original Fujita (F) Scale. The EF Scale will continue to rate tornadoes on a scale from zero to five, but ranges in wind speed will be more accurate with the improved rating scale. The National Weather Service has approved the EF Scale and expects it to be fully implemented by February 2007.

"The EF Scale takes into account additional variables which will provide a more accurate indication of tornado strength," said retired Air Force Brig. Gen. David L. Johnson, director of NOAA's National Weather Service. "The EF Scale will provide more detailed guidelines that will allow the National Weather Service to more accurately rate tornadoes that strike in the United States."

The F Scale was developed in 1971 by Dr. T. Theodore Fujita to rate tornadoes and estimate associated wind speed based on the damage they cause. The EF Scale refines and improves the original scale. It was developed by the Texas Tech University Wind Science and Engineering (WISE) Research Center, along with a forum of wind engineers, universities, private companies, government organizations, private sector meteorologists and NOAA meteorologists from across the country.

Limitations of the original F Scale may have led to inconsistent ratings, including possible overestimates of associated wind speeds. The EF Scale incorporates more damage indicators and degrees of damage than the original F Scale, allowing more detailed analysis and better correlation between damage and wind speed. The original F Scale historical data base will not change. An F5 tornado rated years ago is still an F5, but the wind speed associated with the tornado may have been somewhat less than previously estimated. A correlation between the original F Scale and the EF Scale has been developed. This makes it possible to express ratings in terms of one scale to the other, preserving the historical database.

The National Weather Service is an office of the National Oceanic and Atmospheric Administration, an agency of the U.S. Commerce Department. NOAA is dedicated to enhancing economic security and national safety through prediction and research of weather and climate-related events and environmental stewardship of our nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners and 60 countries to develop a global monitoring network that is as integrated as the planet it observes.

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EDITOR'S NOTE: Copies of the research and methodology used to develop the enhanced Fujita scale are available online at: <http://www.wind.ttu.edu/EFscale.pdf>

On the web:

NOAA: <http://www.noaa.gov>

NOAA's National Weather Service: <http://www.nws.noaa.gov>

Enhanced Fujita Scale: <http://www.spc.noaa.gov/efscale>